REMARKS

This invention relates to recognizing the notion that adequate compaction fundamentally relates to the ability of the base material to support some heavy structure built on top of it without undergoing deformation greater than some predetermined quantity. This concept was discussed with Examiner Miller and the Supervisory Examiner in the telephone interview of June 1, 2005. This is why, as discussed in Applicants' background, some jurisdictions require a so called "proof rolling test" to establish that the base material can support a heavy weight without substantially deforming. This ability of the base material to support a weight is different from what density the base material is. In other words, while it is true that material density, such as measured by a Troxler device, is often correlated to the ability of that base material to support a heavy weight without deformation, it is not a direct measurement of the ability of that base material to resist sinkage deformation. Hence, this explains why in some failure occurrences, the base material may have passed a Troxler density measurement threshold, but, because of one reason or another, the base material still deformed when built upon. The present invention recognizes that there is probably no better indication as to how well the base material can support a structure without deformation than actually placing a heavy weight on the base material and assessing the sinkage deformation interaction between that heavy weight and the base material. In this case, the present disclosure further recognizes that assessing a sinkage deformation interaction between a relatively heavy compactor and the base material can provide this information. That quality control information can then later be converted to quality assurance data, such as the results of a proof rolling test or correlate to an expected density measurement, which are often required in many jurisdictions for approval before further building on the base material can proceed.

Applicants claimed term relating to "sinkage deformation interaction" between the compactor and the base material was never intended, and should not be read onto, anything shown or described in the Troxler reference, which Applicants supplied in an Information Disclosure Statement when this application was originally filed. Applicants have asserted that there is no way to interpret this phrase consistent with Applicant's specification, as it must be, and also broadly read onto the density measurements of the type taught by Troxler. Hence, this is why the claims were not previously amended. But in an effort to reach a compromise and to make more explicitly clear, in the claim itself, there was agreement in the interview that if the

claims were amended to make it clear that sinkage deformation interaction was something other than a density of the base material, that such an amendment would be entered and would distinguish the claimed invention from anything fairly taught by Troxler.

Claims 1-4, 6, 7, 9-15, 17, 18 and 20 stand rejected under 35 USC §102(b) over Troxler Sr. et al. In addition, claims 5, 8, 16, and 19 stand rejected under 35 USC §103(a) over Troxler Sr. et al. in view of Swanson et al. As previously argued and discussed in the interview, Applicants respectfully disagree since Troxler Sr. et al. teaches a method and apparatus for obtaining real time density measurements, but in no way teaches the quantification of a sinkage deformation interaction between the compactor and the base material, as required by Applicant's claims. Since the MPEP and relevant case law require that a reference disclose exactly what an Applicant has claimed in order to support a §102 rejection, Applicants believe that the rejections should be withdrawn. In view of the amending changes made to independent claims 1 and 11 to make it more explicitly clear that Applicant's claim terminology can not be read onto the density measurement taught by Troxler, Applicants respectfully assert that all of the outstanding rejections based at least on part on Troxler Sr. et al. should be withdrawn.

Applicants incorporate by reference the arguments contained in the previously response to Office Action that explain why many of Applicant's dependent claims are further patentable over anything fairly taught by the cited references, since they include patentable subject matter even if Troxler Sr. can be misread onto Applicant's independent claims.

In view of the amendment and arguments submitted, this application is believed to be in condition for allowance of claims 1-20. However, if the Examiner believes that some minor additional clarification would put this application in even better condition for allowance, Applicants invite the Examiner to contact the undersigned attorney at (812) 333-5355 in order to hasten the prosecution of this application.

Respectfully Submitted,

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